

PRELIMINARY AMENDMENT
Rule 53(b) Divisional of
U.S. Appln. No. 09/790,716

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Original) A joint for a duplex pipe including an outer pipe for passing a first fluid, an inner pipe disposed inside of the outer pipe, the inner pipe for passing a second fluid, and a rib for connecting the outer pipe with the inner pipe, wherein the outer pipe is eliminated at an end portion to expose the inner pipe, the joint comprising:

 a main body disposed at the end portion of the outer pipe to cover the inner pipe exposed, the main body defining a passage for passing the first fluid flowing inside the outer pipe, the main body defining a first opening communicated with the passage, and a second opening penetrated by the inner pipe exposed;

 a first connecting portion defining a first through hole communicated with a first outlet pipe;

 a second connecting portion defining a second through hole for connecting the inner pipe with a second outlet pipe; and

 a connecting pipe for guiding the first fluid to the first connecting portion, one end of the connecting pipe disposed at the first opening, the other end of the connecting pipe disposed at the first through-hole of the first connecting portion;

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wherein the first opening is formed at a predetermined position in response to disposed conditions of the connecting pipe to utilize the main body in common.

2. (Original) The joint according to claim 1, wherein the second connecting portion is integrally formed with the inner pipe, and has a joining portion for connecting the second connecting portion to the second outer pipe.

3. (Original) The joint according to claim 1, wherein the main body has a wall defining the first opening.

4. (Original) The joint according to claim 3, wherein the wall has a concave portion for holding a connecting material for connecting the inner pipe.

5. (Original) The joint according to claim 1, wherein the connecting pipe has a connecting portion connected at an edge of the first opening and expanded outward in a radial direction of the first opening.

6. (Original) The joint according to claim 5, wherein the first opening is formed to be adjustable with respect to an attaching position of the connecting pipe to the first opening.

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7. (Original) The joint according to claim 1, wherein the first connecting portion and the second connecting portion are formed in a flange type or union type.

8. (Original) The joint according to claim 7, wherein the first connecting portion of the flange type and the second connecting portion of the flange type are integrally formed with each other.

9. (Original) The joint according to claim 7, wherein the second connecting portion of the flange type has a through hole inserting a tightening structure, and the through hole is formed in a direction different from a direction where the inner pipe penetrates the wall.

10. (Original) A joint for a duplex pipe including an outer pipe for passing a first fluid, an inner pipe disposed inside of the outer pipe, the inner pipe for passing a second fluid, and a rib for connecting the outer pipe with the inner pipe, wherein the outer pipe is eliminated at an end portion to expose the inner pipe, the joint comprising:

a main body formed in a block shape, the main body disposed at the end portion of the outer pipe to cover the inner pipe exposed, the main body forming a passage for passing the first fluid flowing inside the outer pipe; the main body defining a first opening for supplying the first

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fluid from the passage to a first outer pipe, and a second opening for supplying the second fluid from the inner pipe to a second outer pipe;

wherein the inner pipe exposed from the end portion of the outer pipe crosses the passage and elongates substantially in straight.

11. (Original) A joint for a duplex pipe including an outer pipe for passing a first fluid, an inner pipe disposed inside of the outer pipe, the inner pipe for passing a second fluid, and a rib for connecting the outer pipe with the inner pipe, wherein the outer pipe is eliminated at an end portion to expose the inner pipe, the joint comprising:

a main body formed in a block shape, the main body defining a first passage for passing the first fluid and a second passage for passing the second fluid, the main body defining a first opening for communicating the first passage with a first outer pipe guiding the first fluid, a second opening for communicating the second passage with a second outer pipe guiding the second fluid;

a first connecting portion connecting an end of the outer pipe with the first passage;

a second connecting portion connecting an end of the inner pipe with the second passage, the second connecting portion defining a concave portion;

a stopper for engaging the end of the outer pipe or the end of the inner pipe with at least one of the first connecting portion and the second connecting portion; and

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a brazing material brazed in the concave portion of the second connecting portion, the brazing material for brazing the end portion of the inner pipe to the second connecting portion.

12. (Original) The joint according to claim 11, wherein the concave portion has a tapered form in cross section to be smaller toward an end.

13. (Original) The joint according to claim 11, wherein a release mouth of the concave portion is turned upward when the end portion of the inner pipe is brazed to the second connecting portion, to temporarily support the brazing material and store the brazing material fused therein.

14. (Original) The joint according to claim 11, wherein the main body comprising: a first wall defining a blind hole in the first passage; and a second wall continuing to the first wall and defining a through hole communicating with the blind hole;
the first connecting portion is formed at the through hole; and
a blind plug is attached to a release end of the blind hole to close the release end.

15. (Original) The joint according to claim 11, wherein the main body comprising: a first wall defining a blind hole in the first passage; and

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the first connecting portion is formed at a release end of the blind hole.

Claims 16-25 - Canceled.